AMENDMENTS TO THE CLAIMS

Upon entry of this amendment, the following listing of claims will replace all prior versions and listings of claims in the pending application.

Please amend the pending claims as follows:

1. (Currently Amended) An optical sub-assembly for processing an optical signal, the sub-assembly comprising:

a working path of the optical network;

a first sub-band of the optical signal carried only by the working path;

a protect path of the optical network configured to protect the working path;

a second sub-band of the optical signal carried only by the protect path;

a first module disposed along the working path for affecting the working path; and

a second module disposed along the protect path for affecting the protect path;

wherein wavelengths of the optical signal of the first sub-band are non-overlapping with wavelengths of the optical signal of the second sub-band.

2. (Original) The sub-assembly of claim 1, wherein the first sub-band is one of a C-band and an L-band, and the second sub-band is the other of a C-band and an L-band.

3. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of optical amplifiers.

4. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of band pass filters.

5. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of channel add devices.

6. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of channel drop devices.

7. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of demultiplexers.

8. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of multiplexers.

9. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of interleavers.

10. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of attenuators.

11. (Original) The sub-assembly of claim 1, wherein the first and second modules are comprised of dispersion compensation modules.

12. (Currently Amended) A method of processing an optical signal in an optical network, comprising the steps of:

separating the optical signal into a first sub-band supporting only a working path and a second sub-band supporting only a protect path configured to protect the working path;

routing the first sub-band through a first module to form the working path and routing the second sub-band through a second module of the same type as the first module to form the protect path; and

recombining the first and second sub-bands;

wherein wavelengths of the optical signal of the first sub-band are non-overlapping with wavelengths of the optical signal of the second sub-band.

13. (Original) The method of claim 12, wherein the separating step comprises the step of routing the optical signal through an L/C splitter.

14. (Cancelled)

15. (Original) The method of claim 12, wherein the routing step further comprises amplifying the first sub-band with the first module and amplifying the second sub-band with the second module.

16. (Original) The method of claim 12, wherein the routing step further comprises filtering the first sub-band with the first module and filtering the second sub-band with the second module.

17. (Previously Presented) The method of claim 12, wherein the routing step further comprises adding at least one channel to the first sub-band with the first module in the form of a channel add device and adding at least one channel to the second sub-band with the second module in the form of a channel add device.

18. (Previously Presented) The method of claim 12, wherein the routing step further comprises dropping at least one channel from the first sub-band with the first module in the form of a channel drop device and dropping at least one channel from the second sub-band with the second module in the form of a channel drop device.

19. (Previously Presented) The method of claim 12, wherein the routing step further comprises demultiplexing the first sub-band with the first module in the form of a demultiplexer and demultiplexing the second sub-band with the second module in the form of a demultiplexer.

20. (Previously Presented) The method of claim 12, wherein the routing step further comprises multiplexing the first sub-band with the first module in the form of a multiplexer and multiplexing the second sub-band with the second module in the form of a multiplexer.

21. (Previously Presented) The method of claim 12, wherein the routing step further comprises interleaving the first sub-band with the first module in the form of an interleaver and interleaving the second sub-band with the second module in the form of an interleaver.

22. (Previously Presented) The method of claim 12, wherein the routing step further comprises attenuating the first sub-band with the first module in the form of an attenuator and attenuating the second sub-band with the second module in the form of an attenuator.

23. (Previously Presented) The method of claim 12, wherein the routing step further comprises compensating for dispersion of the first sub-band with the first module in the form of a dispersion compensation module and compensating for dispersion of the second sub-band with the second module in the form of a dispersion compensation module.

24. (Currently Amended) An optical amplifier node for amplifying an optical signal, the amplifier node comprising:

a first amplifier for amplifying only signals from a first sub-band of the optical signal, wherein the signals are carried only by a working path; and

a second amplifier for amplifying only signals from a second sub-band of the optical signal, wherein the signals are carried only by a protect path configured to protect the working path;

wherein wavelengths of the optical signal of the first sub-band are non-overlapping with wavelengths of the optical signal of the second sub-band.

25. (Original) The optical amplifier node of claim 24, further comprising a sub-band splitter for splitting the optical signal into at least two sub-bands.

26. (Original) The optical amplifier node of claim 25, wherein the sub-band splitter is an L/C splitter.

27. (Original) The optical amplifier node of claim 24, further comprising a sub-band combiner for combining at least two sub-bands into the optical signal.

28. (Original) The optical amplifier node of claim 27, wherein the sub-band combiner is an L/C combiner.